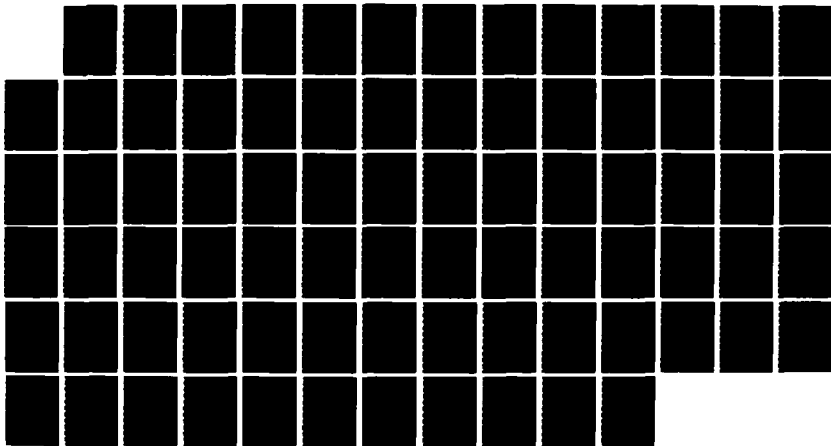


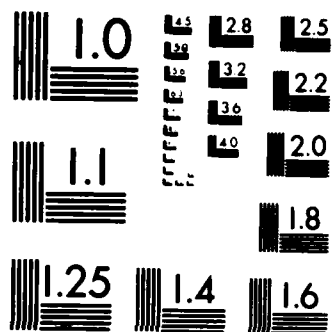
AD-A174 087 THE VALUE HIERACHIES OF SELECTED AIR FORCE OFFICERS(U)  
AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL  
OF SYSTEMS AND LOGISTICS C E MCCOSH SEP 86  
UNCLASSIFIED AFIT/GLM/LSH/865-48

F/G 5/9

1/1

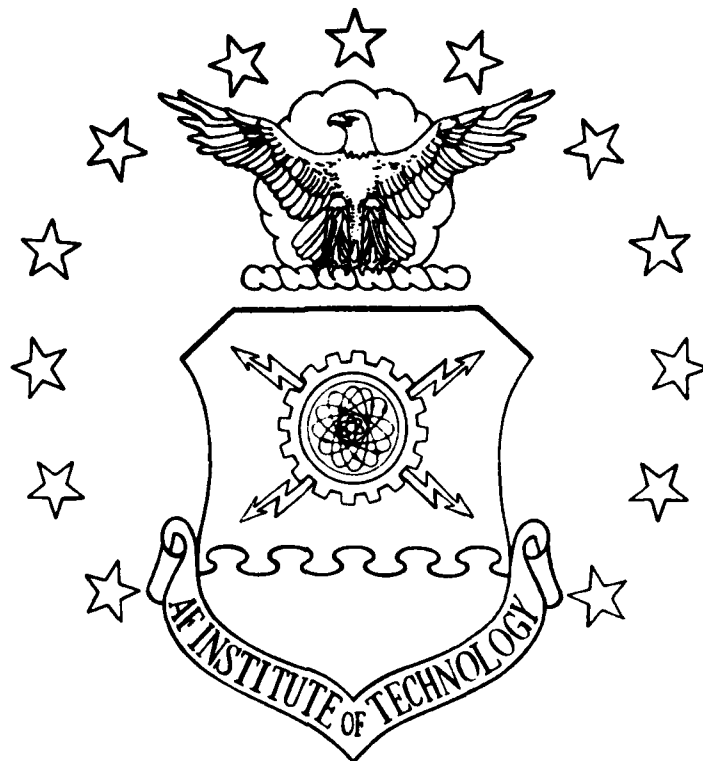
NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

AD-A174 087



THE VALUE HIERARCHIES OF  
SELECTED AIR FORCE OFFICERS

THESIS

Carol E. McCosh  
Captain, USAF

AFIT/GLM/LSH/86S-48

**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited

**DTIC**  
**ELECTE**

NOV 21 1986

B

DEPARTMENT OF THE AIR FORCE  
AIR UNIVERSITY

**AIR FORCE INSTITUTE OF TECHNOLOGY**

Wright-Patterson Air Force Base, Ohio

86 11 10 104

DTIC FILE COPY

2

AFIT/GLM/LSH/86 **5-48**

THE VALUE HIERARCHIES OF  
SELECTED AIR FORCE OFFICERS

THESIS

Carol E. McCosh  
Captain, USAF

AFIT/GLM/LSH/86S-48

**DTIC**  
**ELECTE**  
NOV 21 1986  
**S** **D**  
**B**

Approved for public release; distribution unlimited

The contents of the document are technically accurate, and no sensitive items, detrimental ideas, or deleterious information is contained therein. Furthermore, the views expressed in the document are those of the author and do not necessarily reflect the views of the School of Systems and Logistics, the Air University, the United States Air Force, or the Department of Defense.

RE: Copyright, Page 62  
 The author, Ms. Carol E. McCosh, bought the survey from Halgren Tests. It can be used in the report.  
 Per Mr. John A. Muller, AFIT/LSH



Accession For	
NTIS CH&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	<input type="checkbox"/>
By _____	
Distribution _____	
Availability _____	
Dist	Avail
A-1	SECRET

AFIT/GLM/LSH/86S-48

THE VALUE HIERARCHIES OF SELECTED AIR FORCE OFFICERS

THESIS

Presented to the Faculty of the School of Systems and Logistics  
of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the  
Requirements for the degree of the  
Master of Science in Logistics Management

Carol E. McCosh, B.S.

Captain, USAF

September 1986

Approved for public release; distribution unlimited

## Preface

The purpose of this research was to compare the value hierarchies of selected Air Force officer groups and to compare these groups to the civilian population. The need for this research is to determine if Air Force officers are different from the civilian population and if differences can be found within selected groupings of officers.

The Rokeach Value Survey was used to determine value hierarchies of the groups. SPSSx software was used to test for differences among the groups. No rigid statistical tests were used in the analysis of the various hierarchies. The findings of this research should not be interpreted as conclusive, but, rather as suggestive answers to the research questions posed.

Throughout the writing of this thesis I have had a great deal of help from others. I am deeply indebted to my thesis advisor, Dr. John Muller, and my thesis reader, Dr. Guy Shane, for their thought-provoking assistance and continued patience. I also wish to thank Gursel Serpen for his invaluable assistance during the data entry and analysis phases of my thesis work. Finally, I wish to thank Aydin and Sehnaz Yilmaz for their understanding and help during my long hours of word processing work.

Carol E. McCosh

## Table of Contents

	Page
Preface . . . . .	ii
List of Tables . . . . .	v
Abstract . . . . .	vii
I. Introduction . . . . .	1
General Issue . . . . .	1
Definition of Terms . . . . .	2
Specific Problem Statement . . . . .	3
Scope . . . . .	4
Justification . . . . .	5
Research Objectives . . . . .	5
Investigative Questions . . . . .	6
Background . . . . .	7
Kohlberg . . . . .	7
Rokeach . . . . .	9
Others . . . . .	10
Rokeach's Work . . . . .	11
II. Method. . . . .	14
Justification of Survey Approach . . . . .	14
The Survey Instrument . . . . .	15
Instrument Validity . . . . .	16
Population . . . . .	17
Sample and Sample Plan . . . . .	17
Data Collection Plan . . . . .	18
Statistical Tests . . . . .	20
Design to Answer the Research Questions . . . . .	20
Common Value Hierarchy . . . . .	20
Relatedness Between Composite Value Hierarchies . . . . .	21
Assumptions . . . . .	21
III. Findings . . . . .	23
Samples . . . . .	23
Statistical Evaluation of Compiled Data . . . . .	24
Kendall Coefficient of Concordance (W) . . . . .	24
Composite Value Hierarchy Differences . . . . .	25



	Page
IV. Discussion of Findings . . . . .	40
Investigative Question Number One . . . . .	40
Instrumental Values . . . . .	40
Terminal Values . . . . .	47
Investigative Question Number Two . . . . .	53
Instrumental Values . . . . .	53
Terminal Values . . . . .	53
Investigative Question Number Three . . . . .	55
Instrumental Values . . . . .	55
Terminal Values . . . . .	56
V. Conclusions . . . . .	60
Appendix: Rokeach Value Survey . . . . .	62
Bibliography . . . . .	64
Vita . . . . .	66

### List of Tables

Table	Page
I. Kohlberg's Classification of Moral Judgment . .	8
II. Stratification of the Population . . . . .	19
III. Stratification of the Sample . . . . .	19
IV. Stratification of the Respondents . . . . .	19
V. Instrumental Value Means and Composite Rank Orders for Civilian and Military Samples . .	26
VI. Terminal Value Means and Composite Rank Orders for Civilian and Military Samples . . . . .	27
VII. Instrumental Value Means and Composite Rank Orders for Field Grade and Company Grade Officer Samples . . . . .	28
VIII. Terminal Value Means and Composite Rank Orders for Field Grade and Company Grade Officer Samples . . . . .	29
IX. Instrumental Value Means and Composite Rank Orders for Officers Based on Source of Commission Samples . . . . .	30
X. Terminal Value Means and Composite Rank Orders for Officers Based on Source of Commission Samples . . . . .	31
XI. Instrumental Value Means and Composite Rank Orders for Field Grade Officers Based on Source of Commission Samples . . . . .	32
XII. Terminal Value Means and Composite Rank Orders for Field Grade Officers Based on Source of Commission Samples . . . . .	33
XIII. Instrumental Value Means and Composite Rank Orders for Company Grade Officers Based on Source of Commission Samples . . . . .	34
XIV. Terminal Value Means and Composite Rank Orders for Company Grade Officers Based on Source of Commission Samples . . . . .	35

	Page
XV. Kendall Coefficient of Concordance, W . . . . .	36
XVI. Values Ranked Significantly Different for the Samples Compared . . . . .	38

Abstract

This thesis determines if selected groups of Air Force officers have a common value hierarchy and compares this value hierarchy to that of the composite civilian population. This information could be used to evaluate potential Air Force officers and the effects of military life on personnel. Knowledge of the value hierarchies of officers--the basis of decision-making--should prove very enlightening. Three investigative questions were posed: (1) Is the value hierarchy of company grade and field grade officers significantly different from that of the composite civilian population? (2) Is the value hierarchy of company grade officers significantly different from that of field grade officers? (3) Are the value hierarchies of officers based on source of commission significantly different from each other at the field grade and company grade levels? The survey generated ordinal data, which required application of non-parametric statistics for evaluation of results. The statistical tests used suggest that each sample did have a common value hierarchy and that some significant differences among values were found among the samples analyzed.

## THE VALUE HIERARCHIES OF SELECTED AIR FORCE OFFICERS

### I. Introduction

#### General Issue

The scandals over cheating at the Air Force Academy, West Point, and Annapolis between the mid-1970's and early 1980's have focused the attention of the military and Congress on the quality of value judgments made by future leaders of the military (Rosen, 1983:3-4). On the premise that character formation is not complete for cadets when they arrive at a service academy, formal training in Ethics is given to cadets to improve their moral character. This implies that cadets are not adequately prepared by civilian society to deal with professional values necessary for a career in the military. A military career is very different from a civilian career.

"Those citizens who are members of the Army, Navy, or Air Force have the primary mission of protecting and preserving the Constitution, including our free institutions and way of life; the prosecution of wars with the incident hazard; and the service of the Federal Government wherever duty is directed. They give up many freedoms of choice which the civilian takes for granted" (Kinney, 1978:135).

The mission common to all branches of the military service and the decision to teach Ethics and professional values to all military cadets suggest that a relatively

homogeneous value system may be desirable for all future military leaders. A value system is an organization of enduring beliefs made up of instrumental (behavior) and terminal (end-state) values arranged in a hierarchy of relative importance to an individual (Rokeach, 1973:5). Instrumental values can be defined as preferred modes of conduct--the means by which one achieves a goal. Terminal values can be defined as end-states of existence--the goals one wishes to achieve. The hierarchy is neither completely stable (change is possible) nor completely unstable (relative continuity is necessary to prevent chaos). Experience and the process of maturation lead to an ordering of values based on importance (Rokeach, 1973:6). Since military officers are exposed to many common experiences, their value systems should be relatively homogeneous as compared to the value systems of the civilian population. Officers whose value systems differ radically from the "military norm" are faced with the choice of adapting to this norm or separating from the service. "The possibility exists that value hierarchy incongruency may be the primary underlying force causing separation" (Boyle, 1976:13).

#### Definition of Terms

The following definitions of terms will serve throughout this paper:

Value--An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of

existence (Rokeach, 1973:5).

Value System--An enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance (Rokeach, 1973:5). Individual values within this system may change over time if they contradict one's self-image (Rokeach, 1973:229).

Terminal Values--Desirable end-states of existence (Rokeach, 1973:7). An end-state is a goal an individual wishes to attain.

Instrumental Values--Desirable modes of conduct (Rokeach, 1973:7).

Value Hierarchy--A rank ordering of terminal or instrumental values along a single continuum (Rokeach, 1973:22).

#### Specific Problem Statement

The purpose of this research is threefold: to discern if significant differences exist between the military and the civilian populations; to discern if significant differences exist between officers based on source of commission; and to discern if significant differences exist between officers based on length of commissioned service.

Teaching ethics and professional values to the military implies that less difference should be found among the value hierarchies of the military than is found in the general population. This research is designed to discern if significant differences exist between the military and the civilian population.

The subject of ethics and professional values has been approached in different ways by the Air Force, depending of the source of commission (service academy, ROTC, or OTS).

Until recently, Air Force Academy cadets were given formal classroom instruction as well as an all-pervading Honor Code ("We will not lie, cheat, or steal, nor tolerate among us anyone who does") throughout their entire four years at the Academy.

"The Code is an effort to influence cadets to live honorably so that they will graduate as exceptional officers with high standards of individual honor and integrity and maintain those standards throughout their lifetimes" (Rosen, 1983:2).

Officer Training School candidates were given the Honor Code to guide their actions during their eight-week training course. Reserve Officer Training Corps students received the least training in Ethics and professional values. These differences in approaches may have lead to differences in value hierarchy congruency for military officers. This research compares value hierarchies based on source of commission.

Experience and the process of maturation leads to ordering values by priority and importance. Since field grade officers have been exposed to common experiences longer than company grade officers, the value hierarchies of field grade officers should be more homogeneous than those of company grade officers. This research compares value hierarchies based on length of commissioned service.

#### Scope

This research explores the value hierarchy only of Air Force officers, not other branches of the service. Assuming



the composite Air Force value hierarchy should be virtually identical to (or at least a subset of) the general military value hierarchy, this research is limited to the Air Force. A further limitation of the scope of this thesis involves the comparison aspect. The comparisons involve company grade and field grade officers only. This allows for a more in-depth look at the differences and similarities of these two groups based on source of commission.

### Justification

Previous studies of value hierarchies have been conducted to compare the differences present among demographic groups (age, sex, intellectual ability, and liberalism) and among Air Force cadets (freshman and senior classes). Thus far, no attempt has been made to make comparisons between military and civilian value hierarchies, nor to compare value hierarchies based on time in service or source of commissioning. Since values are general plans an individual purports to use to resolve conflicts and make decisions (Rokeach, 1973:12), it follows logically that the Air Force would be interested in value hierarchy congruency among its personnel.

### Research Objectives

The main objective of this research is to determine if significant differences can be found among the value hierarchies of the military and the civilian population. Milton Rokeach found significant differences within the

civilian population based on age, sex, intellectual ability, and liberalism (Rokeach, 1973:36). His composite rank ordering of terminal and instrumental values (Rokeach, 1973:57-58) is compared to the composite rank orderings of company grade and field grade officers.

The second objective of this research is to determine if significant differences exist among the value hierarchies of company grade and field grade officers. Company grade officers normally have between one and eleven years of commissioned service. Field grade officers normally have between eleven and twenty years of commissioned service. Comparison of the value hierarchies of these two groups highlights differences based on the socialization process in the military.

The third objective of this research is to determine if significant differences exist among the value hierarchies of officers based on source of commission (Academy, Officer Training School, and Reserve Officer Training Corps).

#### Investigative Questions

The specific questions which this research attempts to answer are:

1. Is the value hierarchy of company grade and field grade officers different from that of the composite civilian population (Rokeach, 1973:57)?
2. Is the value hierarchy of company grade officers different from that of field grade officers?
3. Are the value hierarchies of officers based on source of

commission different from each other at the field grade and company grade levels?

### Background

Numerous theories have been put forward with varying degrees of usefulness in the area of the study of values. Those of Kohlberg and Rokeach will be covered here as only these apply directly to this research.

Kohlberg. Lawrence Kohlberg classifies moral judgment into three levels and six stages of development (Table I). His theory states that the upper levels may never be reached. He further states that there is an invariant sequence from stage one to stage six (no stage may be bypassed to reach a higher stage) (Zimbardo, 1975:436). Individuals progress through the levels and stages as a result of interactions between themselves and their environment, given a certain rate of maturation (Rosen, 1980:196). The locus of value judgments changes from other-oriented to rule-based to self-oriented as an individual matures. As value judgments change, the relative of one value to another may also change.

Kohlberg further states that adult moral development is characterized by relative stability of conventional morality, consistency of judgments and actions, and integration of moral structures (Zimbardo, 1975:436). A logical ordering of values along a continuum of relative importance characterizes the mature stages of moral development.

TABLE I  
Kohlberg's Classification of Moral Judgment  
(Zimbardo, 1975:435)

<u>LEVEL</u>	<u>BASIS OF MORAL JUDGMENT</u>	<u>STAGES OF DEVELOPMENT</u>
I	Moral value resides in external, quasi-physical happenings, in bad acts, or in quasi-physical needs rather than in persons and standards.	<p>Stage 1: Obedience and punishment orientation. Egocentric deference to superior power or prestige, or a trouble-avoiding set. Objective responsibility.</p> <p>Stage 2: Naively egoistic orientation. Right action is that instrumentally satisfying the self's needs and occasionally others'. Awareness of relativism of value to each actor's needs and perspective. Naive egalitarianism and orientation to exchange and reciprocity.</p>
II	Moral value resides in performing good or right roles, in maintaining the conventional order and others.	<p>Stage 3: Good-boy orientation. Orientation to approval and to pleasing and helping others. Conformity to stereotypical images of majority or natural role behavior, and judgment by intentions.</p> <p>Stage 4: Authority and social-order maintaining orientation. Orientation to "doing duty" and to showing respect for authority and maintaining the given social order for its own sake. Regard for earned expectations of others.</p>
III	Moral value resides in conformity by the self to shared or sharable standards, rights, or duties.	<p>Stage 5: Contractual legalistic orientation. Recognition of an arbitrary element or starting point in rules or expectations for the sake of agreement. Duty defined in terms of contract, general avoidance of violation of the will or rights of others, and majority will and welfare.</p> <p>Stage 6: Conscience or principle orientation. Orientation not only to actually ordained social rules but to principles of choice involving appeal to logical universality and consistency. Orientation to conscience as a directing agent and to mutual respect and trust.</p>

Rokeach. Milton Rokeach's work is a conception of human values. He systematically develops a framework for the study of values and value systems. He makes five key assumptions:

1. Individuals possess a relatively small total number of values.
2. Everyone possesses the same values to differing degrees.
3. Values are organized into value systems.
4. Culture, society and its institutions, and personality are the antecedents of values.
5. The consequences of values are manifested in virtually all phenomena of social science (Rokeach, 1973:3).

Rokeach espouses two types of values--instrumental behavior values with moral and competence components and terminal end-state values with personal and social components. These two kinds of values represent two separate but functionally interconnected systems. Instrumental values are central to the attainment of terminal values and correspond to Kohlberg's theory of moral development. Rokeach views values as standards of desirability that are virtually independent of specific situations. These values serve adjustive, ego-defensive, knowledge, and self-actualizing functions for individuals. They are central to an individual's self-concept.

Rokeach synthesized over 18,000 trait-names originally compiled by Allport and Odbert into a list of 18 instrumental and 18 terminal values (Rokeach, 1973:29), suitable for "measurement." Numerous test instruments were devised to

"measure" these values before "Form D was invented to make the ranking of 18 terminal and 18 instrumental values easier than traditional rankings normally made with pen or pencil" (Rokeach, 1973:30). His survey is a list of these values arranged in alphabetical order which each subject rearranges into the order of preference for the subject. Each value is printed on a gummed label along with a short explanation of that value. The subject peels off the value label and places it on the side numbered 1 to 18. The task becomes progressively easier with each value ranked. For example, after ranking the first value, the task becomes a 17 item ranking task, and so on. "The average length of the scale demanding the respondent's attention" is 9.5 (Rokeach, 1973:30). This survey is easily administered (amenable to mail out surveys), requires approximately 10 to 20 minutes to do, and is claimed to have acceptable validity (Rokeach, 1973:26-52).

Others. Gordon Allport states "a value is a belief upon which a man acts by preference" (Rokeach, 1973:7). Based on this, the military indeed should be interested in a homogeneity of values among its officer corps to enable commonality of actions in critical situations. As stated by Sam Sarkesian, ". . . military cohesion and effectiveness depend largely on the harmony of individual moral and ethical values, the values of the military profession, and the values of society" (Sarkesian, 1981:18). Sarkesian further states that

". . . the moral and ethical patterns of the military profession must be linked with society on the one hand and stem from the unique purpose of the profession on the other. As difficult as it may be, this effort requires the linking of a subsystem based on homogeneous values, a predictable environment, and a controlled socialization process with the larger political-social system, which pursues a heterogeneous and pluralistic value system and depends on a variety of sources for socialization" (Sarkesian, 1981:9-10).

As further support for Rokeach's and Sarkesian's ideas, Weaver states, "Shared values and perceptions . . . hold the officer corps together" (Weaver, 1975:57). Therefore, common value hierarchies are likely to be found within the officer corps. The importance of value congruency between an individual and his profession is highlighted by "A recent poll of Air Force officers who voluntarily resigned their commissions lists . . . dissatisfaction with military authority and structure" as "the leading cause" (Weaver, 1975:75).

Rokeach's Work. Rokeach found that an individual's value hierarchies are relatively stable over time (Rokeach, 1973:34-39). He stated that "terminal value reliabilities are consistently higher than the instrumental value reliabilities. One possible reason for this finding is that terminal values are learned earlier and thus become stabilized earlier in the development of the individual than do instrumental values " (Rokeach, 1973:34). He also found that "the more stable one's terminal value system, the more stable also one's instrumental value system" (Rokeach, 1973:35) and "values initially ranked

as most and least important change least" over time (Rokeach, 1973:39). This implies that the end-states (goals) an individual wishes to achieve are determined prior to the determination of the means (how to achieve these goals). Once these goals are prioritized in an individual's life, they change very little. The means to achieve the goals are more likely to change over time than the goals themselves. Also, Rokeach's findings indicate that a general hierarchy of values is employed by individuals and this general framework consists of most, middle, and least important values. The middle ground appears to be where the most change is likely to occur.

Rokeach's work involved administering the Value Survey to a sample of Americans over twenty-one in April 1968. The National Opinion Research Center performed the survey with the sample drawn from all strata of American society (Rokeach, 1973:55). His sample consisted of 1,409 American men and women (Rokeach, 1973:57-58). This sample was selected using a "national area probability sample" technique--the exact procedure for selection was not explained in Rokeach's work (Rokeach, 1973:34).

He compared the value hierarchies of this sample based upon sex, income, education, race, age, religion, political preference, and cultural differences. "The findings show that different numbers and combinations of the 36 terminal and instrumental values differentiate significantly among groups varying in demographic and cultural variables" (Rokeach, 1973:93).



Rokeach also compared the value hierarchies of various occupational groups. He found remarkably similar value patterns among professors in five academic fields regardless of whether the individuals were assistants, associates, or full professors. He states,

"It would thus seem that academic values are determined by selective factors that predispose one to an academic career or by socialization in graduate school rather than after recruitment to a faculty position. This conclusion is essentially similar to the one reached in studies of the determinants of the values of police and Catholic priests" (Rokeach, 1973:149).

This indicates the self-selection process for career choice may be based upon a value hierarchy similar to others in that occupation. Based upon these findings, it is reasonable to predict a common value hierarchy for other occupational groups, such as Air Force officers.

## II. Method

### Justification of Survey Approach

To make valid comparisons of Air Force officers to the civilian population requires the use of the same measurement instrument. Since Rokeach's analysis of the civilian population was performed using his Value Survey, this requires using that same survey for the Air Force officer population. This Value Survey is easily understood, direct in its approach and very straightforward in its administration (amenable to mail out survey techniques). It can be mailed out with an added cover sheet and does not require a structured environment to complete the survey. The survey can be completed easily in 10 to 20 minutes without detailed explanations.

It should be noted that only 17 of the 18 values on the value hierarchies lists were used in the analyses. This was necessary since the Value Surveys supplied by the publisher contained different values from those originally used by Rokeach. Rokeach's original values contained Happiness and Cheerful. Approximately half of the surveys returned listed Happiness as an instrumental value and the other half substituted Health for this value. Approximately half of the surveys returned listed Cheerful as a terminal value and the other half substituted Loyal for this value. Therefore, to enable comparison of like values, these were disregarded

throughout the analyses.

### The Survey Instrument

The value survey instrument developed by Rokeach consists of two separate lists of 18 instrumental and 18 terminal values arranged in alphabetical order with a brief definition of each value just below its name. Appendix 1 shows a representation of this survey.

The respondent is asked to study the list carefully and then to arrange each list in order of its importance to him, as guiding principles in his life. The values are printed on gummed labels which are easily peeled off and pasted in the box chosen by the respondent. The respondent is further instructed that he can also change his mind and rearrange his choices. The respondent's task becomes progressively easier--his first choice is out of 18 possibilities, his second choice is out of 17 possibilities, and so on. The average of the scale demanding the respondent's attention thus becomes 9.5 (Rokeach, 1973:31).

A cover sheet requesting demographic data was attached to each survey in place of the cover sheet provided by the standard Form D Value Survey cover sheet. The cover sheet requested the respondent's sex (M-F), source of commission (Academy, OTS, or ROTC), whether company grade or field grade, whether prior service, number of years of commissioned service, and whether he intends to remain in the Air Force. This information was compiled for the composite analyses.

The Value Survey rankings measure the respondent's value hierarchy on an ordinal scale. An ordinal scale allows for order (greater than or less than), but does not allow for magnitude of differences (how much more than or less than).

### Instrument Validity

Rokeach designed his Value Survey as an all-purpose instrument for research on human values (Rokeach, 1973:51). He intended the survey to be used to measure stability of value systems, changes in value systems, similarities of value systems among individuals, and similarities of value systems among individuals and groups (Rokeach, 1973:31-39).

To determine internal validity ( if the survey measures what it purports to measure), Homant compared Rokeach's survey with Osgood's semantic differential technique and correlated indices with the rank ordering of values (Rokeach, 1973:49). The median correlations were .68 and .62 (Rokeach, 1973:50). Rokeach states that "...the value rankings measure essentially the same kind of meaning as that measured by Osgood's evaluative factor and that they do so notwithstanding its simplicity" (Rokeach, 1973:50).

The median test-retest reliabilities, for example, of five college aged samples were between .69 and .80 for instrumental reliability and between .61 and .72 for terminal reliability (4:32).

Since Form D of the Value Survey (gummed label version) provides the best reliability results, is simple and

economical to use, and will allow comparisons of Air Force officers with the civilian population, it is the most practical instrument for this research (Rokeach, 1973:33).

### Population

The population of interest in this research is all company grade and field grade officers in the Air Force. Using an Atlas Statistical Summary Inquiry, this population was found to contain 98,096 people. Since the areas of interest involve whether these officers are company grade or field grade and their source of commission, the stratification of the population is of the matrix format found in Table II.

### Sample and Sample Plan

A simple random sample selection from each stratum of the population is desired. Practical considerations of time and cost dictated an 85% confidence level is the highest achievable within the individual cells and a 90% confidence level is the highest achievable for comparisons based on grade and source of commission. The minimum acceptable number of respondents for this confidence level is represented by the stratified sampling plan of random samples of the matrix format found in Table III.

The Central Limit Theorem states that if a large enough random sample is selected from the population, the sampling distribution will be approximately normal (Boyle, 1976:21-22). The sample is "large enough" if the sample size is greater than thirty (Boyle, 1976:22). Since each element in the

sampling matrix is greater than thirty, the sampling distributions are approximately normal and are representative of their populations.

Actual selection of individuals within each element of the stratified samples is based upon digits of their social security numbers. For example, for the company grade officers whose source of commission is the Academy, the population is 9638 and a sample size of 34 is desired. Limiting the sample to those whose last digit of their social security number is a 3, cuts 9638 to approximately 963 possibilities. Further limiting this group to a 6 or an 8 in the second-to-the-last digit cuts 963 to approximately 192, and so on. This random procedure was repeated for each sample element until the desired number of random sample elements was chosen. This number was then adjusted by the expected return rate to ensure an adequate response would be achieved. The actual breakdown of respondents is of the matrix format found in Table IV.

#### Data Collection Plan

Data collection from the random samples was accomplished by mailing the surveys to those selected using the sampling plan procedure. The individuals completed the surveys and returned them for processing. The surveys were mailed out in April with a requested return date of the end of June 1986. The individuals were able to complete the surveys any time during this period.

The median of the value hierarchies was used as a measure of central tendency. From the data, a composite

**TABLE II**  
**Stratification of the Population**

	COMPANY GRADE	FIELD GRADE	TOTAL
ACADEMY	9638	3757	13395
ROTC	28625	16776	45401
OTS	26497	12803	39300
TOTAL	64760	33336	98096

**TABLE III**  
**Stratification of the Sample**

	COMPANY GRADE	FIELD GRADE	TOTAL
ACADEMY	34	34	68
ROTC	34	34	68
OTS	34	34	68
TOTAL	102	102	204

**TABLE IV**  
**Stratification of the Respondents**

	COMPANY GRADE	FIELD GRADE	TOTAL
ACADEMY	37	42	79
ROTC	44	39	83
OTS	36	50	86
TOTAL	117	131	248

rank ordering was compiled for each of the sample elements. This allowed for easy comparison with the composite rank orderings done by Rokeach using like procedures (Rokeach, 1973:57-58). Composite rank orderings were grouped by source of commission and by whether they pertain to company grade or field grade officers.

### Statistical Tests

As stated earlier, the data collected is on an ordinal scale. This limits analyses of the data to nonparametric statistical tests. Conceivably, the range of possible values for each item of the two hierarchies (instrumental and terminal values) is between 1 and 17.

### Design to Answer the Research Questions

Common Value Hierarchy. The Kendall coefficient of concordance procedure found in the SPSSx software (SPSS, 1986:823) available on the AFIT ASC computer system was used to determine the amount of agreement for the mean rankings for each group (See Siegel's Nonparametric Statistics [Siegel, 1956:229-238] for an explanation of Kendall's coefficient of concordance, W). If the W (coefficient of concordance) is zero, this signifies no agreement. If the W is one, this signifies complete agreement (SPSS, 1986:823). The composite rank orders for each group were then calculated for the mean rank statistics (i.e., lowest mean ranking is highest ranked value). The chi-square test statistic output from the SPSSx software was used to test for a common



composite value hierarchy for each group. As stated by Siegel, when N (the sample size) is larger than seven, the test statistic is approximately distributed as a chi square with N-1 degrees of freedom (11:236). Thus,  $\chi^2 = K(N-1)W$ ,

where K = number of respondents in the sample

N = number of entities ranked

W = Kendall W (Siegel, 1956:236).

The critical value of the chi-square test statistic for all groups at  $\alpha = .001$  with 16 degrees of freedom is 39.29. Therefore, if the chi square statistic for each sample must be greater than 39.29 to reject the null hypothesis. The null hypothesis ( $H_0$ ) is that there is no common value hierarchy for the groups. The alternative hypothesis ( $H_a$ ) is that there is a common value hierarchy for each group (SPSS, 1986:823).

Relatedness Between Composite Value Hierarchies. No statistical tests were found to measure the magnitude of differences between the composite value hierarchies. Therefore, the test of differences as deemed appropriate by the researcher is that any individual value that varies in ranking by more than two positions is different enough to be of interest. Justification for this approach is found in The Value Hierarchies of Selected Air Force Academy Classes by Boyle and McCall.

#### Assumptions

1. The Value Survey devised by Rokeach is a valid and

reliable instrument for determining the value hierarchies of the samples for this research effort.

2. The random samples chosen will be representative of their respective populations.

3. The anonymity of the respondents will lessen the possibility of deliberate distortions of the rankings.

4. Individual value hierarchies are relatively stable over time (Rokeach, 1973:5-6), therefore the results of Rokeach's research done in 1968 will be a valid indicator of value hierarchies of the civilian population in 1986.

### III. Findings

The purpose of this chapter is to present the findings from the research and methodology described in Chapter Two. The results provide the basis to answer the investigative questions posed in Chapter One:

1. Is the value hierarchy of company grade and field grade officers different from that of the composite civilian population (Rokeach, 1973:57)?
2. Is the value hierarchy of company grade officers different from that of field grade officers?
3. Are the value hierarchies of officers based on source of commission different from each other at the field grade and company grade levels?

#### Samples

Two hundred and forty-eight useable value surveys were returned to the researcher. The raw data were coded for entry into the VAX 11/785 (ASC) computer system. SPSSx software loaded on the ASC was used to perform all statistical tests on the coded data. Twelve separate analyses were performed on the data with each analysis providing mean rankings of the two value hierarchies, the chi-square test statistic for the Friedman test and the Spearman correlation coefficients. The twelve analyses were:

1. All respondents (N=248)
2. All field grade officers (N=131)
3. All company grade officers (N=117)

4. All Academy source of commission officers (N=79)
5. All ROTC source of commission officers (N=83)
6. All OTS source of commission officers (N=86)
7. All field grade officers whose source of commission is the Academy (N=42)
8. All field grade officers whose source of commission is ROTC (N=39)
9. All field grade officers whose source of commission is OTS (N=50)
10. All company grade officers whose source of commission is the Academy (N=37)
11. All company grade officers whose source of commission is ROTC (N=44)
12. All company grade officers whose source of commission is OTS (N=36)

Since the N (sample size) for all twelve groupings is greater than 30, the samples are considered to be representative of their populations. All composite statistics presented for the civilian population were derived from combining the male and female populations of Rokeach's work (Rokeach, 1973:57-58 and 364-367). The computer output provided frequency distributions by absolute frequency, percentage of occurrence and mean statistic for each value for each group. Tables V - XIV present the mean rankings and composite rank orders for the instrumental and terminal values respectively for all compared samples.

#### Statistical Evaluation of Compiled Data

The following statistics were computed using the formulas presented in Chapter II.

Kendall Coefficient of Concordance (W). The Kendall W for all classes for instrumental and terminal values was computed as listed in Table XV. The chi square sample value of 39.29 was obtained from a Table of Critical Values of Chi Square

(11:249). The null hypothesis ( $H_0$ ) that the rankings are unrelated can be rejected at the alpha level of .001 if the computed sample chi square value exceeds 39.29. All twenty-four null hypotheses were rejected at the .001 level of significance. Therefore, each sample has a value hierarchy common to that sample.

Composite Value Hierarchy Differences. The value rankings deemed significantly different for the samples compared are presented in Table XVI.

TABLE V

**Instrumental Value Means and Composite Rank  
Orders for Civilian and Military Samples**

	Civilian N = 1409	Military N = 248
1. Ambitious	6.55 (2)	10.96 (13)
2. Broadminded	7.46 (5)	10.79 (12)
3. Capable	9.53 (9)	6.89 (5)
4. Clean	8.71 (8)	14.17 (17)
5. Courageous	7.82 (6)	11.77 (14)
6. Forgiving	7.25 (4)	4.70 (1)
7. Helpful	8.19 (7)	5.12 (2)
8. Honest	3.29 (1)	6.62 (4)
9. Imaginative	15.25 (17)	9.61 (8)
10. Independent	10.46 (12)	9.66 (9)
11. Intellectual	13.01 (14)	8.40 (6)
12. Logical	14.13 (16)	13.73 (16)
13. Loving	9.69 (11)	10.74 (11)
14. Obedient	13.29 (15)	5.55 (3)
15. Polite	10.79 (13)	12.89 (15)
16. Responsible	6.71 (3)	9.95 (10)
17. Self-Controlled	9.59 (10)	8.94 (7)

**Note:** Figures shown are mean rankings and, in parentheses, composite rank orders.

TABLE VI

Terminal Value Means and Composite Rank  
Orders for Civilian and Military Samples

	Civilian N = 1409	Military N = 248
1. A Comfortable Life	8.96 (9)	8.98 (6)
2. An Exciting Life	15.23 (17)	9.32 (9)
3. A Sense of Accomplishment	8.88 (8)	6.66 (2)
4. A World at Peace	3.38 (1)	9.26 (8)
5. A World of Beauty	13.55 (14)	14.85 (17)
6. Equality	8.58 (7)	7.46 (3)
7. Family Security	3.80 (2)	11.74 (14)
8. Freedom	5.53 (3)	9.83 (10)
9. Inner Harmony	10.41 (12)	10.54 (12)
10. Mature Love	12.44 (13)	8.93 (5)
11. National Security	9.52 (11)	10.71 (13)
12. Pleasure	14.57 (16)	8.81 (4)
13. Salvation	8.53 (6)	10.52 (11)
14. Self-Respect	7.78 (4)	13.50 (16)
15. Social Recognition	14.43 (15)	12.78 (15)
16. True Friendship	9.34 (10)	4.29 (1)
17. Wisdom	8.08 (5)	9.13 (7)

Note: Figures shown are mean rankings and, in parentheses, composite rank orders.

TABLE VII

Instrumental Value Means and Composite Rank  
Orders for Field Grade and Company Grade Officer Samples

	Field Grade N = 131	Company Grade N = 117
1. Ambitious	11.00 (12)	10.92 (13)
2. Broadminded	10.94 (11)	10.62 (12)
3. Capable	6.11 (4)	7.76 (5)
4. Clean	14.68 (17)	13.61 (16)
5. Courageous	12.02 (15)	11.49 (14)
6. Forgiving	4.11 (1)	5.36 (1)
7. Helpful	4.84 (2)	5.44 (2)
8. Honest	6.67 (5)	6.57 (4)
9. Imaginative	9.68 (8)	9.53 (10)
10. Independent	10.03 (9)	9.24 (8)
11. Intellectual	8.17 (6)	8.66 (7)
12. Logical	14.38 (16)	13.00 (15)
13. Loving	11.10 (13)	10.32 (11)
14. Obedient	5.29 (3)	5.84 (3)
15. Polite	12.00 (14)	13.88 (17)
16. Responsible	10.54 (10)	9.29 (9)
17. Self-Controlled	9.40 (7)	8.42 (6)

Note: Figures shown are mean rankings and, in parentheses, composite rank orders.



TABLE VIII

Terminal Value Means and Composite Rank  
Orders for Field Grade and Company Grade Officer Samples

	Field Grade N = 131	Company Grade N = 117
1. A Comfortable Life	9.31 (8)	8.61 (4)
2. An Exciting Life	9.53 (9)	9.09 (5)
3. A Sense of Accomplishment	6.30 (2)	7.06 (2)
4. A World at Peace	8.82 (7)	9.76 (11)
5. A World of Beauty	15.06 (17)	14.62 (17)
6. Equality	7.00 (3)	7.97 (3)
7. Family Security	11.91 (14)	11.56 (14)
8. Freedom	9.98 (10)	9.66 (8)
9. Inner Harmony	10.68 (11)	10.37 (13)
10. Mature Love	8.44 (5)	9.48 (6)
11. National Security	11.34 (13)	10.00 (12)
12. Pleasure	8.15 (4)	9.56 (7)
13. Salvation	11.25 (12)	9.70 (10)
14. Self-Respect	13.81 (16)	13.16 (16)
15. Social Recognition	13.19 (15)	12.32 (15)
16. True Friendship	4.26 (1)	4.33 (1)
17. Wisdom	8.63 (6)	9.68 (9)

Note: Figures shown are mean rankings and, in parentheses, composite rank orders.

TABLE IX

Instrumental Value Means and Composite Rank  
Orders for Officers Based on Source of Commission Samples

	Academy N = 79	ROTC N = 83	OTS N = 86
1. Ambitious	12.09 (13)	11.00 (13)	9.90 (9)
2. Broadminded	10.51 (12)	10.39 (11)	11.44 (12)
3. Capable	6.87 (5)	6.78 (4)	7.01 (5)
4. Clean	14.27 (17)	14.27 (17)	14.00 (17)
5. Courageous	12.49 (14)	11.42 (14)	11.45 (13)
6. Forgiving	4.73 (1)	5.08 (2)	4.29 (1)
7. Helpful	5.44 (3)	4.64 (1)	5.28 (2)
8. Honest	6.08 (4)	7.63 (5)	6.15 (4)
9. Imaginative	8.99 (8)	9.90 (10)	9.88 (8)
10. Independent	9.49 (9)	9.53 (8)	9.92 (10)
11. Intellectual	8.33 (6)	8.03 (6)	8.83 (6)
12. Logical	13.58 (16)	13.90 (16)	13.70 (16)
13. Loving	10.06 (11)	10.61 (12)	11.47 (14)
14. Obedient	5.18 (2)	5.74 (3)	5.70 (3)
15. Polite	13.15 (15)	12.86 (15)	12.67 (15)
16. Responsible	9.80 (10)	9.84 (9)	10.19 (11)
17. Self-Controlled	8.85 (7)	9.10 (7)	8.87 (7)

Note: Figures shown are mean rankings and, in parentheses, composite rank orders.

TABLE X

Terminal Value Means and Composite Rank  
Orders for Officers Based on Source of Commission Samples

	Academy N = 79	ROTC N = 83	OTS N = 86
1. A Comfortable Life	9.42 (8)	8.45 (6)	9.09 (7-8)*
2. An Exciting Life	9.65 (10)	8.51 (7)	9.81 (10)
3. A Sense of Accomplishment	6.45 (2)	6.84 (2)	6.66 (2)
4. A World at Peace	8.24 (4)	11.46 (13)	8.08 (4)
5. A World of Beauty	15.08 (17)	14.48 (17)	15.00 (17)
6. Equality	7.22 (3)	7.25 (3)	7.87 (3)
7. Family Security	11.65 (14)	11.55 (14)	12.01 (14)
8. Freedom	9.34 (6)	10.51 (11)	9.63 (9)
9. Inner Harmony	10.75 (12)	10.02 (9)	10.83 (13)
10. Mature Love	9.41 (7)	8.40 (5)	9.01 (6)
11. National Security	11.14 (13)	10.34 (10)	10.66 (12)
12. Pleasure	9.61 (9)	7.77 (4)	9.09 (7-8)*
13. Salvation	10.06 (11)	10.96 (12)	10.51 (11)
14. Self-Respect	13.16 (15)	13.72 (16)	13.60 (16)
15. Social Recognition	13.42 (16)	12.36 (15)	12.61 (15)
16. True Friendship	4.03 (1)	4.59 (1)	4.25 (1)
17. Wisdom	8.95 (5)	9.78 (8)	8.66 (5)

Note: Figures shown are mean rankings and, in parentheses, composite rank orders.

\* Tied rankings

TABLE XI

Instrumental Value Means and Composite Rank  
 Order for Field Grade Officers Based on  
 Source of Commission Samples

	Academy N = 42	ROTC N = 39	OTS N = 50
1. Ambitious	12.05 (14)	11.44 (13)	9.78 (8)
2. Broadminded	10.90 (12)	11.00 (12)	10.91 (12)
3. Capable	5.93 (4)	6.05 (4)	6.32 (5)
4. Clean	14.83 (17)	14.90 (17)	14.38 (17)
5. Courageous	12.21 (15)	11.85 (14)	12.00 (14)
6. Forgiving	4.48 (1)	4.18 (2)	3.74 (1)
7. Helpful	5.14 (2)	4.13 (1)	5.14 (2)
8. Honest	6.52 (5)	7.90 (6)	5.84 (3)
9. Imaginative	9.21 (7)	9.62 (8)	10.12 (10)
10. Independent	9.79 (9)	10.28 (9)	10.04 (9)
11. Intellectual	7.88 (6)	7.50 (5)	8.94 (6)
12. Logical	14.74 (16)	14.79 (16)	13.76 (16)
13. Loving	10.26 (10)	10.92 (11)	11.95 (13)
14. Obedient	5.29 (3)	5.28 (3)	5.30 (3)
15. Polite	12.02 (13)	11.76 (15)	12.18 (15)
16. Responsible	10.57 (11)	10.31 (10)	10.70 (11)
17. Self-Controlled	9.55 (8)	9.21 (7)	9.44 (7)

Note: Figures shown are mean rankings and, in parentheses,  
 composite rank orders.

TABLE XII

Terminal Value Means and Composite Rank  
Orders for Field Grade Officers Based on  
Source of Commission Samples

	Academy N = 42	ROTC N = 39	OTS N = 50
1. A Comfortable Life	9.36 (8)	9.46 (8)	9.16 (8)
2. An Exciting Life	9.69 (9)	8.54 (6)	10.16 (10)
3. A Sense of Accomplishment	6.96 (3)	6.00 (2)	5.97 (2)
4. A World at Peace	7.81 (4)	11.90 (14)	7.26 (3)
5. A World of Beauty	15.45 (17)	15.33 (17)	14.52 (17)
6. Equality	6.14 (2)	7.03 (3)	7.70 (4)
7. Family Security	11.93 (13)	10.92 (12)	12.66 (14)
8. Freedom	9.50 (10)	10.51 (10)	9.98 (9)
9. Inner Harmony	10.45 (11)	9.85 (9)	11.53 (13)
10. Mature Love	9.29 (7)	7.28 (5)	8.62 (7)
11. National Security	12.19 (14)	10.72 (11)	11.10 (11)
12. Pleasure	8.83 (6)	7.05 (4)	8.44 (5)
13. Salvation	10.98 (12)	11.72 (13)	11.12 (12)
14. Self-Respect	13.52 (15)	14.05 (16)	13.86 (16)
15. Social Recognition	13.61 (16)	13.15 (15)	12.88 (15)
16. True Friendship	4.02 (1)	4.85 (1)	4.01 (1)
17. Wisdom	8.62 (5)	8.85 (7)	8.47 (6)

Note: Figures shown are mean rankings and, in parentheses,  
composite rank orders.

TABLE XIII

Instrumental Value Means and Composite Rank  
Orders for Company Grade Officers Based on  
Source of Commission Samples

	Academy N = 37	ROTC N = 44	OTS N = 36
1. Ambitious	12.14 (13)	10.61 (13)	10.06 (11)
2. Broadminded	10.05 (12)	9.84 (10)	12.17 (14)
3. Capable	7.95 (5)	7.43 (5)	7.96 (5)
4. Clean	13.62 (16)	13.70 (16)	13.47 (16)
5. Courageous	12.81 (15)	11.05 (14)	10.68 (12)
6. Forgiving	5.03 (1)	5.89 (2)	5.06 (1)
7. Helpful	5.78 (4)	5.10 (1)	5.49 (2)
8. Honest	5.58 (3)	7.39 (4)	6.58 (4)
9. Imaginative	8.74 (7)	10.16 (11)	9.56 (9)
10. Independent	9.16 (10)	8.86 (7)	9.76 (10)
11. Intellectual	8.84 (8)	8.50 (6)	8.67 (7)
12. Logical	12.27 (14)	13.11 (15)	13.61 (17)
13. Loving	9.84 (11)	10.34 (12)	10.81 (13)
14. Obedient	5.07 (2)	6.15 (3)	6.25 (3)
15. Polite	14.43 (17)	13.84 (17)	13.36 (15)
16. Responsible	8.93 (9)	9.43 (9)	9.47 (8)
17. Self-Controlled	8.05 (6)	9.00 (8)	8.08 (6)

Note: Figures shown are mean rankings and, in parentheses,  
composite rank orders.

TABLE XIV

Terminal Value Means and Composite Rank  
Orders for Company Grade Officers Based on  
Source of Commission Samples

	Academy N = 37	ROTC N = 44	OTS N = 36
1. A Comfortable Life	9.49 (8)	7.55 (3)	9.00 (5)
2. An Exciting Life	9.59 (10)	8.48 (6)	9.33 (8)
3. A Sense of Accomplishment	5.86 (2)	7.59 (4)	7.63 (2)
4. A World at Peace	8.73 (4)	11.07 (13)	9.22 (7)
5. A World of Beauty	14.65 (17)	13.73 (17)	15.67 (17)
6. Equality	8.43 (3)	7.45 (2)	8.11 (3)
7. Family Security	11.32 (14)	12.11 (15)	11.11 (14)
8. Freedom	9.16 (6)	10.50 (11)	9.14 (6)
9. Inner Harmony	11.09 (13)	10.18 (9)	9.86 (11)
10. Mature Love	9.54 (9)	9.39 (7)	9.54 (9)
11. National Security	9.95 (11)	10.01 (8)	10.06 (13)
12. Pleasure	10.49 (12)	8.41 (5)	10.00 (12)
13. Salvation	9.03 (5)	10.30 (10)	9.67 (10)
14. Self-Respect	12.76 (15)	13.43 (16)	13.25 (16)
15. Social Recognition	13.22 (16)	11.65 (14)	12.24 (15)
16. True Friendship	4.04 (1)	4.36 (1)	4.58 (1)
17. Wisdom	9.32 (7)	10.61 (12)	8.92 (4)

Note: Figures shown are mean rankings and, in parentheses,  
composite rank orders.

TABLE XV

Kendall Coefficient of Concordance, W

-----  
Military Sample

## Instrumental

W = .2837  
critical = 39.29  
sample = 1125.7216  
Reject Ho

## Terminal

W = .2862  
critical = 39.29  
sample = 1135.6416  
Reject Ho

## Field Grade Officers

## Instrumental

W = .3336  
critical = 39.29  
sample = 699.2256  
Reject Ho

## Terminal

W = .3368  
critical = 39.29  
sample = 705.9328  
Reject Ho

## Company Grade Officers

## Instrumental

W = .2465  
critical = 39.29  
sample = 461.448  
Reject Ho

## Terminal

W = .2445  
critical = 39.29  
sample = 457.704  
Reject Ho

## Academy Source of Commission Officers

## Instrumental

W = .3110  
critical = 39.29  
sample = 393.104  
Reject Ho

## Terminal

W = .3144  
critical = 39.29  
sample = 397.4016  
Reject Ho

## ROTC Source of Commission Officers

## Instrumental

W = .2738  
critical = 39.29  
sample = 363.6064  
Reject Ho

## Terminal

W = .2804  
critical = 39.29  
sample = 372.3712  
Reject Ho

## OTS Source of Commission Officers

## Instrumental

W = .2860  
critical = 39.29  
sample = 393.536  
Reject Ho

## Terminal

W = .2964  
critical = 39.29  
sample = 407.8464  
Reject Ho



Table XV (Continued)

Field Grade Academy Source of Commission Officers

Instrumental  
W = .3431  
critical = 39.29  
sample = 230.5632  
Reject Ho

Terminal  
W = .3790  
critical = 39.29  
sample = 254.688  
Reject Ho

Field Grade ROTC Source of Commission Officers

Instrumental  
W = .3524  
critical = 39.29  
sample = 219.8976  
Reject Ho

Terminal  
W = .3473  
critical = 39.29  
sample = 216.7152  
Reject Ho

Field Grade OTS Source of Commission Officers

Instrumental  
W = .3306  
critical = 39.29  
sample = 264.48  
Reject Ho

Terminal  
W = .3402  
critical = 39.29  
sample = 272.16  
Reject Ho

Company Grade Academy Source of Commission Officers

Instrumental  
W = .3145  
critical = 39.29  
sample = 186.184  
Reject Ho

Terminal  
W = .2681  
critical = 39.29  
sample = 158.7152  
Reject Ho

Company Grade ROTC Source of Commission Officers

Instrumental  
W = .2264  
critical = 39.29  
sample = 159.3856  
Reject Ho

Terminal  
W = .2464  
critical = 39.29  
sample = 173.4656  
Reject Ho

Company Grade OTS Source of Commission Officers

Instrumental  
W = .2444  
critical = 39.29  
sample = 140.7744  
Reject Ho

Terminal  
W = .2626  
critical = 39.29  
sample = 151.2576  
Reject Ho

TABLE XVI

Values Ranked Significantly Different For the Samples Compared

-----  
Instrumental Values  
-----

## Civilian and Military Samples

Ambitious	Broadminded	Capable
Clean	Courageous	Forgiving
Helpful	Honest	Imaginative
Independent	Intellectual	Obedient
Responsible	Self-Controlled	

## Field Grade and Company Grade Samples

Polite

## Source of Commission Samples

Ambitious	Loving
-----------	--------

## Field Grade Source of Commission Samples

Ambitious	Honest	Imaginative
Loving		

## Company Grade Source of Commission Samples

Broadminded	Courageous	Helpful
Imaginative	Independent	Logical

-----  
Terminal Values  
-----

## Military and Civilian Samples

A Comfortable Life	An Exciting Life	A Sense of Accomplishment
A World at Peace	A World of Beauty	Equality
Family Security	Freedom	Mature Love
Pleasure	Salvation	Self-Respect
True Friendship		

## Field Grade and Company Grade Samples

A Comfortable Life	An Exciting Life	A World at Peace
Pleasure	Wisdom	

Table XVI (Continued)

Source of Commission Samples

An Exciting Life	A World at Peace	Freedom
Inner Harmony	National Security	Pleasure
Wisdom		

Field Grade Source of Commission Samples

An Exciting Life	A World at Peace	Inner Harmony
National Security		

Company Grade Source of Commission Samples

A Comfortable Life	An Exciting Life	A World at Peace
Freedom	Inner Harmony	National Security
Pleasure	Salvation	Wisdom

#### IV. Discussion of Findings

The purpose of this research was to answer specific questions concerning value hierarchies of various groups. The Kendall W nonparametric statistic may be interpreted as meaning that each of the individuals within each sample ranked the values in a similar manner. This implies a similarity of value hierarchies within each sample. No rigorous statistical tests were used to measure the magnitude of differences between the composite value hierarchies of the samples. The findings of this research should not be interpreted as conclusive, but, rather as suggestive answers to the investigative questions posed. Each of the investigative questions will be covered separately with possible answers as to why the hierarchies of the compared samples may be different.

##### Investigative Question Number One

Is the value hierarchy of company grade and field grade officers different from that of the composite civilian population?

Instrumental Values. Of the 17 instrumental values ranked, only three were not determined to be different (absolute value of difference for composite rankings less than or equal to two). This suggests a difference between the value hierarchies of company grade and field grade officers as compared to the composite civilian population.

The greatest difference is found in the value obedient (ranked 12 positions higher by the company grade and field grade officers sample than by the civilian sample). This finding is not surprising in light of the fact that dutiful and respectful were the definitions given for obedient and military personnel are indoctrinated in the importance of duty (the job comes first) and respect (for those senior in rank). Civilian personnel receive no such special training. Also, in the military, failure to render obedience to those in authority is an offense punishable under the Uniform Code of Military Justice (UCMJ). The civilian population has no equivalent influence on their behavior.

The next greatest difference is found in the value ambitious (ranked 11 positions higher by the civilian sample than by the field grade and company grade officer sample). The definitions given for this value are hard working and aspiring. Several plausible explanations for this are readily apparent. In the civilian sector, adults often change occupations and the competition for promotions is fierce and not governed by strict guidelines. In the military sphere, individuals do not change jobs and promotional opportunities come at set intervals under set criteria in the Air Force Officer's career. Therefore, the need to be ambitious is viewed differently between civilians and company grade and field grade officers.

Another difference is found in the value clean (ranked nine positions higher by the civilian sample than by

the company grade and field grade officer sample). The definitions given for this value are neat and tidy. Civilian personnel have numerous choices of appropriate attire to wear to their jobs, whereas, military personnel wear prescribed uniforms each day. The surprising aspect of this finding is that military personnel are governed by a regulation (AFR 35-10) as to appropriate standards of appearance and are inspected (either formally or informally) for neatness on a daily basis. Although "forced" to comply with the standards, it appears that company grade and field grade officers may not have internalized this value.

Another difference is found in the value imaginative (ranked nine positions higher by company grade and field grade officers than by the civilian sample). The definitions given for this value are adoring and creative. The responses to this item are confusing and unexpected. This may be the result of the yoking together of adoring and creative. Perhaps the civilians focused on the word adoring and the company grade and field grade officers focused on the word creative. A possible explanation relating to the creativity aspect is that military personnel are often called upon to find a way to perform the mission within strict resource limitations. When a senior officer says he wants something done, the subordinate's job then becomes to find a way to accomplish the task.

Another difference is found in the value courageous (ranked eight positions higher by the civilian sample than by

the company grade and field grade officer sample). The definition for this value is standing up for your beliefs. This finding is not surprising in light of the fact that deference to authority is expected and "rocking the boat" is generally not rewarded in military life. Conformity to expected norms is required of military personnel.

Another difference is found in the value intellectual (ranked eight positions higher by the company grade and field grade sample than by the civilian sample). The definitions given for this value are intelligent and reflective. Since highest educational level achieved is an important aspect of the officer promotion system, this finding is also not surprising. Also, a precondition for commissioning is a college education. Rigid rules concerning educational level and employment are not evident in most equivalent civilian occupations. Although education is important, prior experience appears to be the determinate factor in the civilian sector. A cursory view of the classified section of any newspaper reveals numerous examples of this--the word "experienced" in conjunction with job opportunities is readily apparent.

Another difference is found in the value broadminded (ranked seven positions higher by the civilian sample than by the company grade and field grade officer sample). The definition for this value is open-minded. This finding is also not surprising since it implies a narrower view of the world held by the military than by the civilian population.

Since all who joined the Air Force presumably have similar characteristics that drew them to this profession, their views would tend to be more homogeneous and less tolerant of deviance among colleagues.

Another difference is found in the value responsible (ranked seven positions higher by the civilian sample than by the company grade and field grade officer sample). The definitions given for this value are dependable and reliable. It is possible that because the company grade and field grade officers live in a world permeated by responsibility, they don't recognize it as a highly important value.

Another difference is found in the value helpful (ranked five positions higher by the company grade and field grade officer sample than by the civilian sample). The definition given for this value is working for the welfare of others. Helpful is valued so highly because everyone in the military needs a lot of help. The environment of the military person is in constant flux and some situations may be life threatening.

Another difference is found in the value capable (ranked four positions higher by the company grade and field grade officer sample than by the civilian sample). The definitions for this value are competent and effective. As stated earlier in this section, military personnel do not change occupations and generally do not change career fields. Therefore, they would view themselves as more competent and effective than their civilian counterparts. With the security of the nation



in the hands of the military, the capability to do the job well should rank higher with the company grade and field grade officer sample than with the civilian sample.

Another difference is found in the value forgiving (ranked three positions higher by the company grade and field grade officer sample than by the civilian sample). The definition for this value is willing to pardon others. This value is ranked as the highest value by the company grade and field grade officer sample. The reader is reminded that helpful is ranked as the second highest value. This somewhat unexpected result suggests that forgiveness ranks so high because of the hierarchical structure of the military such that subordinates are forgiven because they are less competent and less experienced. Because of the implied threat of superiors, everyone hopes forgiveness will rank high. Civilians feed on the failures of others in their careers. For the military, if their superior fails, the whole unit fails. Only for violations of regulations that cannot be covered up will military personnel not forgive and help their superiors and subordinates.

Another difference is found in the value honest (ranked three positions higher by the civilian sample than by the company grade and field grade officer sample). The definitions for this value are sincere and truthful. This value is ranked as the highest value by the civilian sample. Because helpful and forgiving rank so high, honesty, of necessity, must go down to a degraded position. The norm is

to support the commander and cover for your subordinates. This leads to possible compromises in integrity (Gray, 1985:83-91). It has been the researcher's experience that sayings such as "Just fix it and keep your mouth shut" and "This doesn't need to go any further" are rather commonplace in the military.

Another difference is found in the value independent (ranked three positions higher by the company grade and field grade officer sample than by the civilian sample). The definitions for this value are self-reliant and self-sufficient. This value ranked ninth (in the middle of the values ranked). As an explanation for this ranking, military personnel have the attitude that "We are all in this together". This perception may be attributed to the fact that stress brings people together in a group. As an explanation for why this value is ranked lower by the civilians, military personnel are taught to be able to work alone--to be capable of doing their jobs independently. The team concept where each member is needed to do his or her unique part is used in the military. Military personnel view themselves as capable of being independent if the need arises and capable of independent decisions to further the mission of the unit. For example, if all the others in the unit die, the last survivor "moves up" and still performs the mission to the best of his or her ability.

Another difference is found in the value self-controlled (ranked three positions higher by the company grade and field

grade officer sample than by the civilian sample). The definitions given for this value are restrained and self-disciplined. This finding is not surprising since in the military, discipline is a way of life. This is not necessarily the case for the civilian sector.

In summary, 14 of the 17 instrumental values analyzed indicated differences deemed to be significant by the researcher between the civilian sample and the company grade and field grade officer sample. The differences in the values logical, loving and polite were deemed to be insignificant. This research suggests that a difference exists between the instrumental value hierarchies of the two samples.

Terminal Values. Of the 17 terminal values ranked, only four were not determined to be different (absolute value of difference for composite rankings less than or equal to two). This suggests a difference between the value hierarchies of company grade and field grade officers as compared to the composite civilian population. The greatest difference is found in three values--pleasure, family security, and self-respect.

A difference is found in the value pleasure (ranked 12 positions higher by the company grade and field grade officer sample than by the civilian sample). The definition for the value is an enjoyable, leisurely life. A plausible explanation for this finding is that military life is "fun" and often easy. As stated in the section for the value helpful, military personnel may be placed in life threatening

situations. Based on these findings, military personnel are "pleasure-seekers" who want to enjoy themselves and are willing to subordinate a lot to achieve pleasure. Military life is often characterized as being either very boring or very stressful and pleasurable activities are a diversion from the boredom and stress. Military personnel realize they might be called upon to die for their country tomorrow, so they want to have fun today.

Another difference is found in the value family security (ranked 12 positions higher by the civilian sample than by the field grade and company grade officer sample). The definition for this value is taking care of loved ones. This finding can be easily explained by the fact that military personnel choose to remain on active duty even though they know they may be forced to be separated from their families on remote tours or may have to take their families to overseas locations where living conditions differ markedly from the Continental United States. They accept these as part of military life. Also, military personnel know that the military mission must always come first, over and above family life.

Another difference is found in the value self-respect (ranked 12 positions higher by the civilian sample than by the company grade and field grade officer sample). The definition for this value is self-esteem. Perhaps for the reasons raised in Major Gray's article concerning integrity and pressures to compromise (Gray, 1985:83-91), self-respect is lower for military personnel than for the civilian sector. Also,

repeatedly being told what to do and how to do it, as is the case in the military, may contribute to lowered self-esteem. A final plausible partial explanation may concern the lack of pride experienced by military personnel during the VietNam era. These feelings may still exist. In this culture, the military has never been highly regarded, except in time of war. As stated by Dr. Muller, my thesis advisor and an ex-Counter Intelligence Corps agent, "Often people who were not considered to be rehirable were recommended for positions of responsibility in a United States military establishment."

Another difference is found in the value true friendship (ranked 9 positions higher by the company grade and field grade officer sample than by the civilian sample). The definition given for this value is close companionship. This value is ranked as the highest value for the company grade and field grade officer sample. The reason for this may be found in the strong appeal the military has for camaraderie and esprit de corps.

Another difference is found in the value an exciting life (ranked eight positions higher by the company grade and field grade officer sample than by the civilian sample). The definition given for this value is a stimulating, active life. The military lifestyle is indeed exciting--new places and people are encountered on an average of every three years. Civilians, on the other hand, can remain in one area and one work environment for their entire lives. This finding agrees with the finding that pleasure ranks so high by the company

grade and field grade officer sample.

Another difference is found in the value mature love (ranked eight positions higher by the company grade and field grade officer sample than by the civilian sample). The definition for this value is sexual and spiritual intimacy. This finding is surprising since family security ranked so low for the company grade and field grade officer sample by comparison. A plausible explanation for this finding may be, in part, that intimacy is difficult to achieve in relationships when military personnel move so often-- therefore, intimacy may be more highly valued.

Another difference is found in the value a world at peace (ranked seven positions higher by the civilian sample than by the company grade and field grade officer sample). The definition given for this value is free of war and conflict. This value is ranked as the highest value by the civilian sample. Civilians want peace because war interferes with their lives (they may be drafted or lose a loved one). Military personnel are prepared for war so they do not place the same importance on world peace. During wars and conflicts, personnel who have been AWOL or deserted the military sometimes return to fight as was the case in the Falklands and Grenada. This is what they were trained to do and they are willing and eager to do it.

Another difference is found in the value freedom (ranked seven positions higher by the civilian sample than by the company grade and field grade officer sample). The

definitions given for this value are independence and freedom of choice. This implies that civilians are willing to sacrifice peace if necessary to maintain their freedom. Also, military personnel, as a precondition of service, must surrender some of their personal freedom to obey orders.

Another difference is found in the value a sense of accomplishment (ranked six positions higher by the company grade and field grade officer sample than by the civilian sample). The definition for this value is a lasting contribution. Military personnel are often in very responsible positions for their ages and this perhaps leads to a greater sense of accomplishment. Also, preserving the peace (the mission of the military) is a lasting contribution.

Another difference is found in the value salvation (ranked five positions higher by the civilian sample than by the company grade and field grade officer sample). The definition for this value is saved, eternal life. Obviously, religion is not as important to the military as it is to civilians. This finding is very interesting in light of the fact that the military provides for the religious needs of its members (chapels and chaplains are located on every base), yet, the officers place less importance on religion than civilians where a strict separation of church and state is maintained.

Another difference is found in the value equality (ranked four positions higher by the company grade and field grade officer sample than by the civilian sample). The definitions

for this value are brotherhood and equal opportunity for all. A likely explanation for this finding is the equal opportunity and treatment concept espoused within the military and the fact that inequality in the military is based only on rank, not on religion, color, or any other characteristic.

Another difference is found in the value a comfortable life (ranked three positions higher by the company grade and field grade officer sample than by the civilian sample). The definition for this value is a prosperous life. A plausible explanation for this finding is that quality of life amenities are provided by the military to all personnel--and greatly advertised as one of its many benefits. Additionally, the pay raises experienced in the military over the last decade may contribute to this feeling of prosperity.

A last difference is found in the value a world of beauty (ranked three positions higher by the civilian sample than by the company grade and field grade officer sample). The definition for this value is beauty of nature and the arts. This finding is easily explained by the fact that war is not beautiful and military personnel must be prepared to destroy nature and arts in the prosecution of wars.

In summary, 13 of the 17 terminal values analyzed indicated differences deemed significant by the researcher between the civilian sample and the company grade and field grade officer sample. The differences in the values inner harmony, national security, social recognition, and wisdom were deemed to be insignificant. This research suggests that



there is indeed a difference in the terminal value hierarchies of both samples.

Investigative Question Number Two

Is the value hierarchy of company grade officers different from that of field grade officers?

Instrumental Values. Of the 17 instrumental values ranked, only one was determined to be different (absolute value of difference for composite rankings greater than or equal to two). This suggests no difference between the value hierarchies of company grade and field grade officers.

The difference is found in the value polite (ranked three positions higher by the field grade officer sample than by the company grade officer sample). The definitions for this value are courteous and well-mannered. The explanation for this finding that comes to mind immediately is that field grade officers are older and wiser--more settled, mature and concerned with the feelings of others.

Terminal Values. Of the 17 terminal values ranked, only five were determined to be different (absolute value of difference for composite rankings greater than or equal to two). This suggests that a difference does exist but may not be significant between the value hierarchies of company grade and field grade officers.

A difference is found in the value a comfortable life (ranked four positions higher by the company grade officer sample than by the field grade officer sample. The definition

for this value is a prosperous life. The difference can be attributed to the company grade officer samples with a source of commission of ROTC and OTS. These two subsamples rank this value higher (five and three positions respectively) than the rest of the subsamples. Since Academy graduates are exposed to military life for four years prior to commissioning date, the subsamples of company grade officers commissioned by ROTC and OTS have the least amount of exposure to military life. This subsample, perhaps being relatively newly exposed to the many facilities provided by the Air Force, place premium importance on a comfortable life. This finding implies that quality of life amenities provided by the military may contribute initially to the decision to join the Air Force, but, may lose their strong appeal over time.

Another difference is found in the value an exciting life (ranked four positions higher by the company grade officer sample than by the field grade officer sample). The definition for this value is a stimulating, active life. A plausible explanation for this is that field grade officers are older, more stable and more settled into life and therefore perceive excitement as less important than company grade officers.

Another difference is found in the value a world at peace (ranked four positions higher by the field grade officer sample than by the company grade officer sample). The definition for this value is free of war and conflict. Again, maturity may explain this finding. Also, field grade officers

were on active duty during the VietNam era and may value peace higher than company grade officers who may have not been involved in a combat environment.

Another difference is found in the value pleasure (ranked three positions higher by the field grade officer sample than by the company grade officer sample). The definition for this value is an enjoyable, leisurely life. Perhaps, since field grade officers as a group are older, the idea of retirement time becomes more important--a time to enjoy life.

A last difference is found in the value wisdom (ranked three positions higher by the field grade officer sample than by the company grade officer sample). The definition for this value is a mature understanding of life. This finding also can be explained by the "older and wiser" adage.

In summary, more differences were found among the terminal values than among the instrumental values. This implies the end goals of company grade and field grade officers may be different (perhaps as a function of maturity and nearness to reaching the goals) but the general methods employed to attain these goals is relatively similar.

### Investigative Question Number Three

Are the value hierarchies of officers based on source of commission different from each other at the field grade and company grade officer levels?

Instrumental Values. Of the 17 instrumental values ranked, only two were determined to be different (absolute

value of difference for composite rankings greater than or equal to two). This suggests no difference between the value hierarchies of officers based on source of commission.

A difference is found in the value ambitious (ranked four positions higher by those commissioned through OTS than by the Academy or ROTC). The definitions for this value are hard working and aspiring. This finding is evident at the field grade officer level only. Perhaps this is because many OTS commissioned officers were prior enlisted (37.2%) and becoming an officer through this route is considered the hardest way to achieve a commission.

The second difference is found in the value loving (ranked three positions higher by those commissioned through the Academy than by OTS). The definitions for this value are affectionate and tender. This finding is also evident at the field grade officer level only. No explanation can be offered by the researcher as to why some officers view loving as more important than others.

Terminal Values. Of the 17 terminal values ranked, only seven were determined to be different (absolute value of difference for composite rankings greater than or equal to two).

A difference is found in the value an exciting life (ranked three positions higher by those commissioned through ROTC than by the Academy or OTS). The definition for this value is a stimulating and active life. This finding is evident at both the field grade and company grade officer

levels. Upon completion of commissioning school, the ROTC group experiences the biggest change in life style--they are at a civilian institution until time of graduation. Academy personnel and OTS personnel (as a group) have previous exposure to military life.

Another difference is found in the value a world at peace (ranked nine positions higher by those commissioned through the Academy and OTS than by ROTC). The definition for this value is free of war and conflict. This finding is evident at both the field grade and company grade officer levels. Perhaps this correlates with the value of an exciting life and the concept that war is exciting.

Another difference is found in the value freedom (ranked five positions higher by those commissioned through the Academy than by ROTC and three positions higher than by OTS). The definitions for this value are independence and free choice. This finding is evident at the company grade officer level only. Perhaps this corresponds to the amount of military professional instruction given to these sources of commissioning personnel. Academy life offers four years of intense instruction 24 hours per day concerning values and professionalism; OTS offers 90 days of 24 hours per day instruction; and ROTC offers the least intense instruction with more of a balance between civilian and military life.

Another difference is found in the value inner harmony (ranked four positions higher by those commissioned through ROTC than by OTS and three positions higher than the Academy).

The definition for this value is freedom from inner conflict. This finding is evident at both the company grade and field grade officer levels. Teaching values encourages inner conflict--learning how to deal with tough issues and where an individual will "draw the line" on these issues. Since those commissioned through ROTC receive the least instruction in this area, they may experience the least amount of conflict from facing these issues. Those commissioned through the Academy receive the most instruction and therefore, face these issues the most.

Another difference is found in the value national security (ranked three positions higher by those commissioned through ROTC than by the Academy with OTS ranked between these two). The definition for this value is protection from attack. This finding is evident at both the field grade and company grade officer levels. No plausible explanation for this finding can be presented.

Another difference is found in the value pleasure (ranked five positions higher by those commissioned through ROTC than by the Academy and three positions higher than OTS). The definition for this value is an enjoyable and leisurely life. The finding is evident at the company grade officer level only. Perhaps this is because ROTC is the easiest commissioning route and may therefore be viewed as the "most fun and easiest" way to get a commission.

The last difference is found in the value wisdom (ranked three positions higher by those commissioned through the

Academy and OTS than by ROTC). This finding is evident at the company grade officer level only. Perhaps since this sample has the least military experience they value education the least and are still concerned more with enjoying life.

In summary, the instrumental value hierarchies do not appear different for officers based upon source of commission. The terminal value hierarchies appear to have more differences. As stated previously, the end goals appear to be more differentiated than the methods employed to reach these goals.

## V. Conclusions

This research sought to answer questions concerning similarities and differences between the instrumental and terminal value hierarchies of selected Air Force officer groups and the civilian population. The findings clearly indicate a difference between the hierarchies of the civilian sample and the company grade and field grade officer sample. This agrees with Rokeach's findings regarding a self-selection process that predisposes an individual to a particular profession (Rokeach, 1973:149). Since the differences based on grade (6 out of 34) and based on source of commission (9 out of 34) are negligible, this implies that the self-selection occurs prior to entering the military and not as a result of the socialization process within the military. Further research into what factors may contribute to this self-selection would be enlightening. Combining this information with composite value hierarchies for the Air Force officer population may be a future aid for the selection of Air Force officers.

The findings also indicate less difference among instrumental values than among terminal values for all officer group comparisons. This indicates that although the end goals deemed most important vary by groupings, the means employed to attain these goals are relatively homogeneous.

The findings further indicate that source of commission



is not a determinate of value hierarchies. The implications of this finding are that since source of commission does not affect value hierarchy formation, then the methods used to teach professional values to new officers do not seem to have an appreciable effect on the value hierarchies of these officers. This being the case, perhaps the resources spent in teaching professional values to new officers should be allocated to other areas of officer career development with minimal value indoctrination given prior to commissioning and an emphasis on value change given through Professional Military Education. To effectively accomplish this, further research must first address the issue of the "desired value hierarchy for Air Force officers".

It should be emphasized at this point that due to the sample size, the findings of this research are limited in depth. This effort should be reaccomplished with a larger sample to ensure the accuracy of the findings and to enable generalizations to be made concerning the population of Air Force company grade and field grade officers.

A final comment is in order concerning this research effort and its findings. Since no appreciable differences were found in the value hierarchies of company grade and field grade officers, the next logical step would be to develop a method to test these officers for their strength of conviction for the values held. Perhaps certain groups of officers would be willing to "bend" on their values more than other groups. Research in this area could prove to be very enlightening.

Appendix

Rokeach Value Survey

1. \_\_\_\_\_ A Comfortable Life  
(a prosperous life)
2. \_\_\_\_\_ An Exciting Life  
(a stimulating, active life)
3. \_\_\_\_\_ A Sense of Accomplishment  
(lasting contribution)
4. \_\_\_\_\_ A World at Peace  
(free of war and conflict)
5. \_\_\_\_\_ A World of Beauty  
(beauty of nature and the arts)
6. \_\_\_\_\_ Equality (brotherhood,  
equal opportunity for all)
7. \_\_\_\_\_ Family Security  
(taking care of loved ones)
8. \_\_\_\_\_ Freedom  
(independence, free choice)
9. \_\_\_\_\_ Happiness  
(contentedness)
10. \_\_\_\_\_ Inner Harmony  
(freedom from inner conflict)
11. \_\_\_\_\_ Mature Love  
(sexual and spiritual intimacy)
12. \_\_\_\_\_ National Security  
(protection from attack)
13. \_\_\_\_\_ Pleasure (an enjoyable,  
leisurely life)
14. \_\_\_\_\_ Salvation  
(saved, eternal life)
15. \_\_\_\_\_ Self-Respect  
(self-esteem)
16. \_\_\_\_\_ Social Recognition  
(respect, admiration)
17. \_\_\_\_\_ True Friendship  
(close companionship)
18. \_\_\_\_\_ Wisdom (a mature  
understanding of life)

(When you have finished, go on to the next page.)

Copyright 1967, 1982 by Milton Rokeach

A copy of this survey may be purchased from:  
Halgren Tests  
N.W. 1145 Clifford  
Pullman, WA 99163  
(509) 334-5636

Below is another list of 18 values. Arrange them in order of importance, the same as before.

1. \_\_\_\_\_ Ambitious  
(hard working, aspiring)
2. \_\_\_\_\_ Broadminded  
(open-minded)
3. \_\_\_\_\_ Capable  
(competent, effective)
4. \_\_\_\_\_ Cheerful  
(lighthearted, joyful)
5. \_\_\_\_\_ Clean  
(neat, tidy)
6. \_\_\_\_\_ Courageous  
(standing up for your beliefs)
7. \_\_\_\_\_ Forgiving  
(willing to pardon others)
8. \_\_\_\_\_ Helpful (working for the  
welfare of others)
9. \_\_\_\_\_ Honest  
(sincere, truthful)
10. \_\_\_\_\_ Imaginitive  
(adoring, creative)
11. \_\_\_\_\_ Independent (self-reliant,  
self-sufficient)
12. \_\_\_\_\_ Intellectual  
(intelligent, reflective)
13. \_\_\_\_\_ Logical  
(consistent, rational)
14. \_\_\_\_\_ Loving  
(affectionate, tender)
15. \_\_\_\_\_ Obedient  
(dutiful, respectful)
16. \_\_\_\_\_ Polite  
(courteous, well-mannered)
17. \_\_\_\_\_ Responsible  
(dependable, reliable)
18. \_\_\_\_\_ Self-Controlled  
(restrained, self-disciplined)

### Bibliography

- Boyle, Peter J. Jr, Major, USAF, and Michael P. McCall, Capt, USAF. The Value Hierarchies' of Selected Air Force Academy Classes, MS thesis SLSR37-76B. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, September, 1976.
- Gray, Lewis H. Jr, Major, USAF. Integrity: What Are the Data Telling Us?, Air University Review, Vol. XXXVI No. 6, AFRP 50-2, Sep-Oct 1985.
- Kinney, A.J., Major General, USAF (Ret). Air Officers Guide, 24th Edition, Harrisburg PA: Stackpole Books, 1978.
- McClave, James T. and George P. Benson. Statistics for Business and Economics, Second Edition. San Francisco CA: Dellen Publishing Company, 1982.
- Rokeach, Milton. The Nature of Human Values. New York NY: The Free Press, 1973.
- Rokeach, Milton. Value Survey. Halgren Tests, Pullman WA.
- Rosen, Bernard. "Honor and Honor Codes", Unpublished paper, 1983.
- Rosen, Bernard. "Kohlberg and the Supposed Mutual Support of an Ethical and Psychological Theory", Journal for the Theory of Social Behavior, V.10, 1980.
- Sarkesian, Sam C. "Moral and Ethical Foundations of Military Professionalism", Military Ethics and Professionalism, The National Defense University, 1981.
- Siegel, S. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill Book Company, 1956.
- SPSSx User's Guide, Second Edition, SPSS Inc. Illinois: McGraw-Hill Book Company, 1986.
- Weaver, Robert B. "The Contemporary American Military Mind: The Role of Values in Military Behavior." Unpublished doctoral dissertation, Rensselaer Polytechnic Institute, 1975.

Zimbardo, Philip G. and Ruch, Floyd L. Psychology and  
Life, Ninth Edition, Scott, Foresman and Company,  
1975.

### Vita

Captain Carol E. McCosh was born on 9 June 1955 in Syracuse, New York. She graduated from high school in Great Falls, Montana, in 1973. She enlisted in the Air Force on 6 May, 1975. She was stationed at Ramstein AB, Germany, as an Inventory Management Specialist, where she attended the University of Maryland evening classes and earned the degree of Bachelor of Science in Psychology in May 1979. She then attended OTS and received her commission on 6 June 1980. She has served as the Materiel Management Officer at Malmstrom AFB, Montana, the Assistant Chief of Supply at Taegu AB, Korea, and Readiness Assessment Analyst and Executive Officer to the Directorate of Materiel Management at Hill AFB, Utah. While in Utah, she earned a second Bachelor of Science degree in Logistics Management. She attended Squadron Officer School in residence just prior to entering the School of Systems and Logistics, Air Force Institute of Technology, in June 1985.

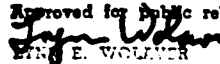
Permanent address: 2000 32nd St. So.  
Great Falls, MT  
59405

UNCLASSIFIED


SECURITY CLASSIFICATION OF THIS PAGE

ADA174087

## REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION <b>UNCLASSIFIED</b>			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited.		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) <b>AFIT/GLM/LSH/86S-48</b>			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION <b>School of Systems &amp; Log</b>		6b. OFFICE SYMBOL (If applicable) <b>AFIT/LSG</b>		7a. NAME OF MONITORING ORGANIZATION	
6c. ADDRESS (City, State and ZIP Code) <b>Air Force Institute of Technology Wright-Patterson AFB, Ohio 45433-6583</b>			7b. ADDRESS (City, State and ZIP Code)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8c. ADDRESS (City, State and ZIP Code)			10. SOURCE OF FUNDING NOS.		
			PROGRAM ELEMENT NO.		PROJECT NO.
			TASK NO.		WORK UNIT NO.
11. TITLE (Include Security Classification) <b>See Box 19</b>					
12. PERSONAL AUTHOR(S) <b>Carol E. McCosh, B.S., Capt. USAF</b>					
13a. TYPE OF REPORT <b>MS Thesis</b>		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Yr., Mo., Day) <b>1986 September</b>	
				15. PAGE COUNT <b>76</b>	
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB. GR.			
<b>05</b>	<b>10</b>		<b>Values, Attitudes</b>		
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>Title: THE VALUE HIERARCHIES OF SELECTED AIR FORCE OFFICERS</p> <p>Thesis Chairman: John A. Muller, GM-13 Associate Professor of English</p>					
<p>Approved for public release: LAW AFR 100-17.            LYNN E. WOULVER          Director, Research and Professional Development          Air Force Institute of Technology (AFIT)          Wright-Patterson AFB OH 45433</p>					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <b>UNCLASSIFIED/UNLIMITED</b> <input checked="" type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS <input type="checkbox"/>			21. ABSTRACT SECURITY CLASSIFICATION <b>UNCLASSIFIED</b>		
22a. NAME OF RESPONSIBLE INDIVIDUAL <b>John A. Muller, GM-13</b>			22b. TELEPHONE NUMBER (Include Area Code) <b>513-255-2820</b>		22c. OFFICE SYMBOL <b>AFIT/LSH/B</b>

→ This thesis determines if selected groups of Air Force officers have a common value hierarchy and compares this value hierarchy to that of the composite civilian population. This information could be used to evaluate potential Air Force officers and the effects of military life on personnel. Knowledge of the value hierarchies of officers--the basis of decision-making--should prove very enlightening. Three investigative questions were posed: (1) Is the value hierarchy of company grade and field grade officers significantly different from that of the composite civilian population? (2) Is the value hierarchy of company grade officers significantly different from that of field grade officers? (3) Are the value hierarchies of officers based on source of commission significantly different from each other at the field grade and company grade levels? The survey generated ordinal data, which required application of non-parametric statistics for evaluation of results. The statistical tests used suggest that each sample did have a common value hierarchy and that some significant differences among values were found among the samples analyzed.





END

12-86

DTIC